The Trust Game Behind the Veil of Ignorance

Vyrastekova, J.; Onderstal, A.M.

Publication date:
2005

CentER

Discussion Paper

No. 2005–96

THE TRUST GAME BEHIND THE VEIL OF IGNORANCE: A NOTE ON GENDER DIFFERENCES

By Jana Vyrastekova, Sander Onderstal

August 2005

ISSN 0924-7815

Tilburg University

The trust game behind the veil of ignorance: A note on gender differences*

Jana Vyrastekova† and Sander Onderstal‡

August 11, 2005

Abstract

We analyze gender differences in the trust game in a "behind the veil of ignorance" design. This method yields strategies that are consistent with actions observed in the classical trust game experiments. We observe that, on average, men and women do not differ in "trust", and that women are slightly more "trustworthy". However, men's strategies are bimodal, peaking at the subgame perfect Nash equilibrium and the Pareto efficient frontier, while women's strategies are single peaked at moderate transfers. Moreover, if a man [woman] exhibits low trust, he [she] is likely to be a money-maximizer [a risk or betrayal averse reciprocator].

JEL Classification: C72, C91

Key words: trust game, experiment, strategy method behind the veil of ignorance, gender differences

*Please send all comments to Jana Vyrastekova, Tilburg University, Department of Economics, P.O. Box 90153, 5000 LE Tilburg, The Netherlands. Tel: +31-13-466 3077, Fax: +31-13-466 3066, E–mail: J.Vyrastekova@uvt.nl.

†Tilburg University, Department of Economics, Tilburg, The Netherlands. Vyrastekova gratefully acknowledges financial support from the Dutch National Science Foundation (NWO-VENI 451-02-038).

‡University of Amsterdam, Department of Economics, Amsterdam, The Netherlands. Onderstal gratefully acknowledges financial support from the Dutch National Science Foundation (NWO-VICI 453.03.606).

The trust game behind the veil of ignorance: A note on gender differences

1 Introduction

The trust game is often seen as one of the games in the toolbox of experimental economics which lends itself to measuring of social preferences and expectations thereof[1], and could be used in the field to extend the traditional data sources available to the researcher.[2] However, it is also recognized that the mix of motivations which play a role in the trust game goes beyond positive reciprocity and the belief in the other player's positive reciprocity. Distributional preferences, attitudes to risk, and betrayal aversion may also influence subjects' choices (Bohnet and Zeckhauser [4], Cox [14] and [12], Schechter [29], Vyrastekova and Garikipati [31]). Therefore, an action observed in the trust game is likely to confound several aspects of individual's preferences, so that the researcher may have to confront her subjects with several games in order to disentangle them. However, it is often impractical to explain, train and perform several different games, especially in the field, as the researcher is constrained by the subject pool size and the spill-over effects across the various games.

In this paper, we investigate how the researcher can obtain a picture of the subjects' social preferences using the trust game. We do so by confronting them with a "behind the veil of ignorance" design, i.e. we ask subjects to submit strategies before they they know which role they play. This approach is loosely connected to the John Rawls' veil of ignorance which he advised to be placed between the decision maker and the society for which he/she designs a just income distribution (Rawls [28]). In this way, the decision maker has to choose the income distribution without knowing his/her own position in the society. In the context of the experiment, a subject faces the task to choose strategies for all roles (positions) in the game before he/she knows which of them will actually be relevant for his/her payoff. From the methodological viewpoint, the main question is to what extent such an experiment design would yield data relevant for subjects' behavior in the standard situation when they submit an action while knowing the role they are assigned to. We address this question in our paper by comparing the collected data to data from other one-role experiments. Additionally to this methodological contribution, we use the proposed method to study gender differences in the trust game. The literature

[1] See e.g. Camerer and Fehr [9] or Carpenter [10].

[2] For instance, it has been previously applied to explain variation in the success rate of microcredit groups. Karlan [25] shows that individuals identified as more trustworthy based on their experimental decisions are actually less likely to default on their group loans in the real world.

on this topic so far is a collection of far from unanimous observations (see Section 2), and we strive to add more clarity to it.

The experiment we present in this paper implements the trust game introduced by Berg et al. [2], in which two players decide. The first mover (referred to as "sender") receives an endowment of 10 points and chooses how many to *transfer* to the second mover (referred to as "returner"). Any amount thus transferred is multiplied by three on the way to the returner. The returner then decides how many of the received points to *return* to the sender. As sharing of the payoff generated by the sender's decision to transfer points cannot be enforced, the sender has to "trust" in the returner's decision to return some of the profit. No transaction would otherwise take place despite the fact that it could lead to a more efficient outcome. In the unique subgame perfect Nash equilibrium of the trust game, the returner will not return anything, and, therefore, the sender will not transfer anything. This is not observed in earlier experiments, whether the game is played sequentially or in a strategy method. Senders transfer on average around half of their endowment to returners, who often return at least some of that (Berg et al. [2], Burks et al. [8], Croson and Buchanan [17], and Chaudhuri and Gangadharan [11]).

Instead of using the classical one-role one-action design of the trust game, we ask all experiment participants to submit both an action for the sender and a complete strategy for the returner. Afterwards, they are randomly assigned their role in the game (i.e. with probability one half the role of sender and with probability one half the role of returner), and their payoffs are determined according to the strategies submitted in the assigned roles. Subjects are informed about this prior to making any decision in the experiment.[3] By observing the strategy of subjects in both roles, we double the amount of information available on the subject pool. Moreover, we are able to distinguish certain motivations for transfers in the trust game which cannot be distinguished in the one-role game without additional experimental tasks for the subjects. Namely, when observing a low amount transferred by a sender, we also can observe whether the same subject in the role of returner decided to return a small or large amount, suggesting that his/her decision was likely to be motivated by the incentives to maximize own monetary payoffs or by attitudes towards risk and/or betrayal aversion.

The remainder of the paper is organized as follows. Section 2 contains an overview of the literature on gender effects in the trust game. We present the experimental design in Section 3 and our data analysis in Section 4. Section 5 concludes the paper.

2 Gender effects in the trust game

Experimental studies thus far usually find that women and men transfer the same in the role of sender, but men are less likely to reciprocate in the role of returner than women, i.e.

[3]Previously, this method has been used by Vyrastekova and Garikipati [31] when studying the role of beliefs for trust. Burks et al. [8] introduced a similar design in their "two-role-prior-knowledge" treatment, as well as Chaudhuri and Gangadharan [11]. We discuss in detail the similarities and dismiliaties with our design in Section 3.

men reveal to be less trustworthy than women.[4] For instance, Croson and Buchanan [17] (using student subjects) as well as Bellemare and Kroeger [3] (using a general sample of the Dutch population) make this observation. Cox [13] also reports the same transfers by men and women, but finds men to return more than women (albeit in a small dataset).[5] In Chaudhuri and Gangadharan's [11] experiment, men transfer more than women, while women return more than men. Cox and Deck [15] observe in binary games with a trust game structure that women reciprocate more than men because they are more sensitive to economic and social costs of reciprocation than men.[6] Danielson and Holm [18] find no significant gender effects at all in a strategy method experiment.

The lack of a clear gender effect in the behavior of senders may seem surprising at first, as women are often considered to be more cooperative and fair than men. Indeed, Andreoni and Vesterlund [1], Eckel and Grosman [20], and Bolton and Katok [3] show that women transfer more in the dictator game than men (although in the last paper, the difference between transfers is not statistically significant). An exception is Dufwenberg and Muren [19] who observe that men and women transfer the same on average, though they also find that men are significantly more likely to select the zero transfer than women.

A plausible explanation for observing that men and women transfer on average the same amount in the trust game while we find gender differences in the dictator game is that a transfer in the trust game can be perceived as a risky investment. Experimental and real world data reveal that women are, on average, more risk averse than men (see Eckel and Grosman [22] and the references therein), so that gender differences in risk preferences may explain why women do not transfer more in the trust game (Eckel and Grosman [21], Schechter [29]).[7] Eckel and Wilson [23] do not find a correlation between risk aversion and behavior in the trust game, yet Chaudhuri and Gangadharan [11] attribute their finding that men "trust" more than women to the observation that men are less risk averse than women. Finally, Bohnet and Zeckhauser [4] show that subjects dislike losing bets to a greater extent when the randomization in a lottery is performed by machine than when the bet is based on a choice made by a human subject. They call this effect "betrayal aversion" and document that it is stronger for women than for men. So, the propensity to cooperate in the trust game (high transfers) can be mitigated by both betrayal aversion and risk aversion.

Returners' incentives in the trust game, in turn, are easier to disentangle. In one-

[4] Here we refer to the literature on gender differences in anonymous interactions, where the gender of the interacting subjects is not revealed to them. Hence, we exclude a full range of other interesting questions involving the effect of gender pairing on the behavior.

[5] He also observes that men return more the more they receive while this is not the case for women.

[6] We show that the reduction to a binary game might lead to noise in the data because women prefer to opt for moderate actions, while men choose extremes. When the moderate actions are not available, women might be prone to mix between the extremes, and their actions might become more similar (or dissimilar) to the choices of men.

[7] Examples of other strategic enviroments that seem to hinge on the cooperation of subjects but entail hidden aspects of risk are public goods games. Brown-Kruse and Hummels [7] find men to be more cooperative than women, though Nowell and Tinkler find that exactly the opposite is true [26]. Controlling for gender composition might explain these discrepancies.

shot anonymous interactions, there is no way to rationalize positive returns to the sender under the assumptions of self-interested money-maximization. Any positive return (save for mistakes, "trembling hands", boredom, etc.) points towards social preferences such as fairness, altruism, inequality aversion or positive reciprocity. So, while the sender's action can have strategic reasons and is less easy to interpret, the returner's action lends itself to disentangling pure self-interest from social preferences. The observation that in most experiments women return more than men in the role of returner is then nicely in line with the observation that in such games as the dictator game, women are more likely to send money than men.

3 Experimental design

In the year 2004, we conducted 14 experimental sessions at Tilburg University. The subjects were 248 students of business and economics (80 female and 168 male), who participated in a circa 1.5 hour long experimental session. In all sessions both men and women participated. The trust game was administered as Task 1 in an experiment containing three tasks. Tasks 2 and 3 are irrelevant to this paper. We made sure that the experiment participants could understand (i) that Task 1 involved a one-time decision paired to an anonymous other participant, (ii) that they would not be able to condition further events in the experiment on decisions made in this task, and (iii) that we would not inform them about their payoff in this task before the end of the experiment. Subjects were paid for participating in the trust game: the sender's endowment of 10 experimental points 1 were worth 2.5 Euro, so that the maximum amount the subjects could distribute among themselves (if the sender transferred all his/her endowment to the returner) was 7.5 Euro. Task 1 usually lasted no longer than 10 minutes.

The language used in the experiments was English, and they were fully computerized, programmed, and conducted using z-Tree (Fischbacher [24]). Upon arrival at a session, participants were randomly seated at computer cubicles separated by blinds, and instructions were read to them out loud. (Instructions are available from the authors on request.) During the experiment, communication other than via computer was prohibited. No information was provided (including information regarding the gender of the other participant).

The trust game was played by a strategy method and all subjects were asked to submit both the strategy in the roles of sender and returner. They knew that at the end of the experiment, the computer would match them randomly to one other participant in the room and determine their role. This means that every subject was paid at the end of the experiment for one decision only. Which decision it would be, was unknown to them when they submitted their strategies.

Our design is most closely related to the "two-role-prior-knowledge" treatment by Burks et al. [8], and a similar design by Chaudhuri and Gangadharan [11]. In order to be clear on the similarities and dissimilarities among our and these two papers, let us note that (1) our experiment is computerized, (2) we use a single-blind procedure, (3) subjects

submit strategies for the roles of both sender and returner, and (4) they are informed ex-ante that they will be paid only for one of these roles, as determined by the computer at the end of the experiment. The "two-role-prior-knowledge" treatment by Burks et al. [8] (1) is manually run, (2) uses a double-blind procedure, and (3) let subjects submit an action for the role of sender, and, after being matched randomly another subject and learning the sender decision of this subject, they choose an action for the role of returner. (4) Subjects are then paid the payoff consequences of their actions chosen as sender and as returner. Chaudhuri and Gangadharan [11] (1) run their experiment manually and (2) use a single-blind procedure. (3) They let subjects submit an action for the role of sender, and subsequently they are asked to report their belief about the amount that will be returned to them by the returner. After reporting this belief, they are asked to submit a strategy for the returner, while matched to another subject, but before learning the decision taken by this subject in the role of sender. (4) Subjects are paid for both roles. Croson [16] shows that asking senders to report their beliefs about the action of the returner moves their behavior closer to the subgame-perfect Nash equilibrium compared to situation when beliefs are not reported. Therefore, we focus in comparisons on Burks et al. [8].

We compare the gender differences in our design to those found by Croson and Buchanan [17] (who apply Berg et al.'s [2] classical one-role one-action design) and Burks et al. [8] (who apply a two-role design). Note that both papers collect subjects' actions while our "behind the veil of ignorance" design forces us to collect returners' strategies. However, most authors find strategies submitted in a strategy design experiment to be consistent with actions chosen in the same game (see e.g. Brandts and Charness [6], Offerman et al. [27], Sonnemans [30]). Therefore, a priori, the two design charateristics that we expect to be crucial for the outcomes of the trust game are (1) whether subjects play one or both role of the game (Berg et al.'s [2] versus Burks et al. [8] and our paper), and (2) whether they are paid for one or both roles of the game (Berg et al. [2] and our paper versus Burks et al. [8]).

4 Data analysis

We observe the following in our experiment. The average outcomes are in line with the original one-role one-action experiment by Berg et al. [2] (we quote Berg et al.'s results in parentheses). On average, senders transfer 53% (52%) of the endowment to the returner. 9% (9%) of the senders transfer nothing (the Nash equilibrium prediction), while 23% (16%) of senders transfer the whole endowment to the returner. The average return by the returner as a fraction of the sender's expenditure is 1.05 (0.89). We observe no significant differences in transfers between our experiment and Berg et al.'s, neither on average nor taking into account the whole distribution (Mann-Whitney U test, $p = 0.998$, Kolmogorov-Smirnov test $p = 0.974$). With respect to returns, the same can be said about the averages (Mann-Whitney U test, $p = 0.319$). However, the Kolmogorov-Smirnov test detects a difference between the distributions of returned amounts ($p = 0.025$). Twice as

much weight in the probability distribution of the average returned amount is placed on returns between 1 and 1.5 times the amount received in our experiment, while in the Berg et al. experiment, more weight is placed on both tails of the distribution. In other words, subjects in the classical design tend more towards the "extremes" than in our design.

Our observations show some differences compared to Burks et al.'s [8] and Chaudhuri and Gangadharan's [11] experiments in which subjects play both roles. Senders in our experiment transfer somewhat higher share of their endowment, on average 53% as compared to 47% in Burks et al. ($p = 0.112$, Mann-Whitney U test) (43% in Chaudhuri and Gangadharan). Second, they return a significantly higher share of the transferred money, 105% as compared to only 38% in Burks et al. ($p = 0.000$, Mann-Whitney U test) (52% in Chaudhuri and Gangadharan).

Observation 1: Senders transfer one half of their endowment to the returner, and such an investment is marginally profitable because on average, the returner returns 105% of the investment. These values do not differ, on average, from those found in the classical one-role one-action trust game experiment by Berg et al. [2]. In other words, the "veil of ignorance" did not dramatically influence the behavior of the subjects compared to the classical procedure. This is in contrast to Burks et al.'s [8] and Chaudhuri and Gangadharan's [11] experiments in which subjects were paid for both roles and matched to a different subject in each of the roles.

Based on this observation, we conclude that the "veil of ignorance" is a viable option for a researcher wishing to obtain more data on a subject while restricting oneself to the trust game only in the experiment. Doing so leads to strategies which correspond to behavior otherwise found in the standard trust game experiment.

Now, let us have a look at gender differences. A summary of strategy combinations submitted in both roles of the trust game by men and women can be found in Figure 1. In it, a striking difference is evident. While the female distribution is unimodal, peaking at transfers of 5 points and returns between 33% and 50% of the tripled money received, male distribution is bimodal. One peak lies at the transfer of 10 points and a return of between 33% and 50% of the tripled money received. The other corresponds to the theoretical subgame perfect Nash equilibrium strategy of transferring as well as returning 0 points.

Observation 2: On average, men and women transfer the same amount in the role of sender, but the distribution of the amounts transferred is concentrated more on extremes for men while women more often choose moderate values.

Let us have a closer look at **sender behavior**. Female senders transfer on average 5.0 points (std. dev. 2.93) and male senders transfer on average 5.43 (std. dev. 3.38). This difference is not statistically significant (Mann-Whitney U test, $p = 0.367$). However, the Kolmogorov-Smirnov test rejects the null hypothesis of equal distributions at 10% level ($p = 0.083$): it is confirmed that male senders make extreme choices more often than female senders, see figure 2.[8]

[8] Chaudhuri and Gangadharan [11] observe the same.

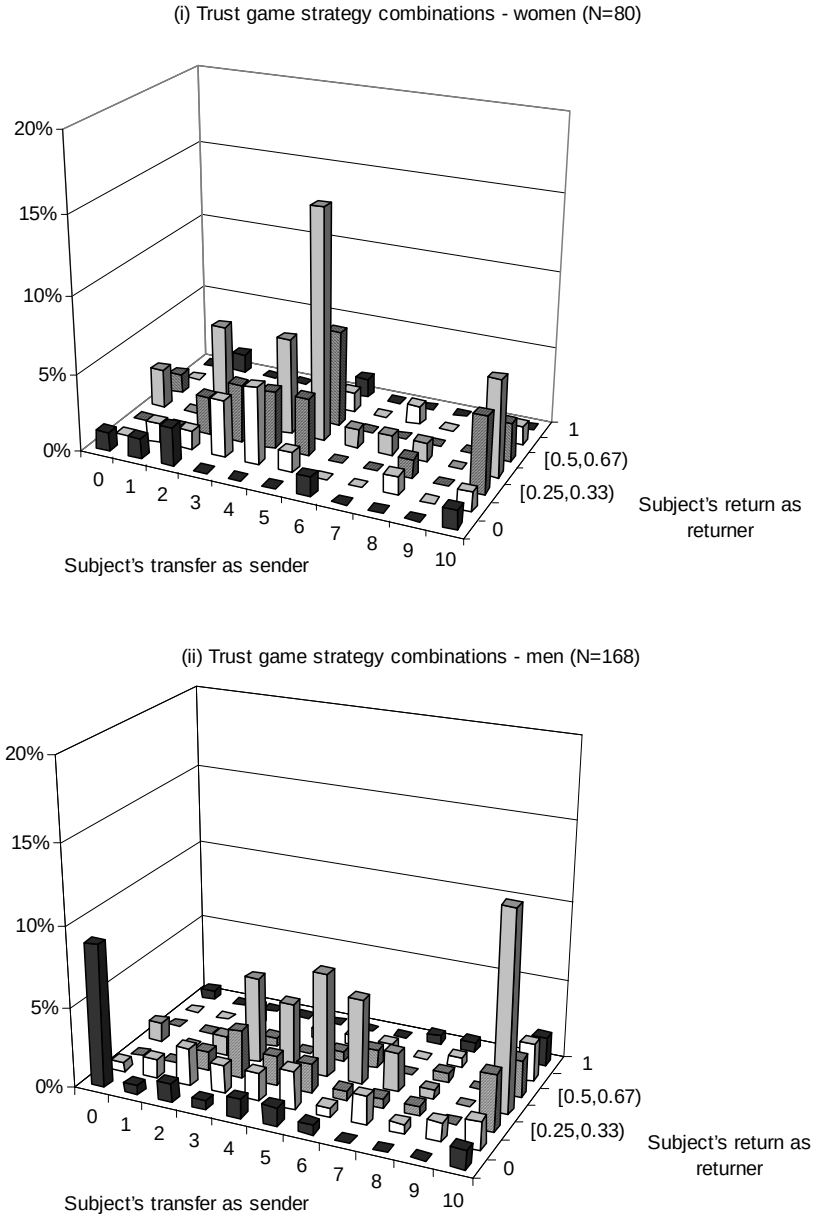

Figure 1: Trust game strategy combinations submitted by (i) women, and by (ii) men.

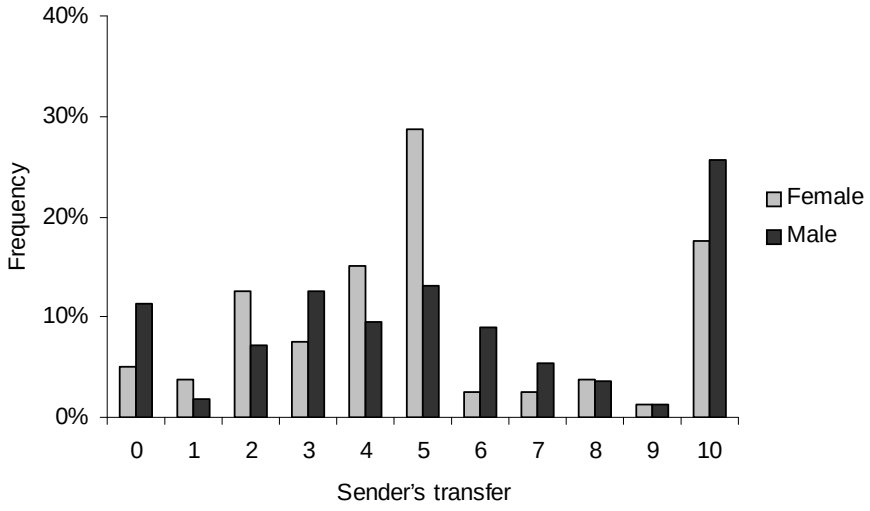

Figure 2: Sender's transfer.

Returner behavior is summarized in Figure 3, which represents how many points senders get back relative to what they transferred, conditional on the number of points transferred. Both men and women return approximately one third of the amount received, and the fraction of returned points increases slightly with the number of points transferred by the sender - a possible indication of reciprocity, rewarding the trust (Spearman rank-based correlation coefficient equals 0.883 and 0.935 for male and female subjects respectively, with p-values of $p = 0.001$ and $p = 0.000$). Based on paired observations of average returned fraction of points for any given number of points transferred by the sender, women return significantly more than men (Wilcoxon test, $p = 0.005$).

Observation 3: Both male and female subjects return approximately one third of the number of points that they receive, and they both show a correlation between the sender's transfer and the fraction of points the returner returns. Yet females return on average significantly more of the received points than males.

We now combine the strategy a subject submits in the roles of sender and returner. In Figure 4 we present the fraction of points that the returner returns to the sender. We distinguish between subjects who are "trusting" senders (who transfer 5 or more points) and "distrusting" ones (who transfer 4 or less points). The return strategy of distrusting senders renders each transfer level of their co-player (on average) unprofitable, while the return strategy of trusting senders justifies the trust of their co-player at any transfer level. As for gender differences, trusting subjects do not differ in their returns (Wilcoxon test, $p = 0.799$), but a different picture arises among the subjects classified as distrusting. Among those, male subjects return a lower fraction of received points than female subjects (Wilcoxon test, $p = 0.005$).

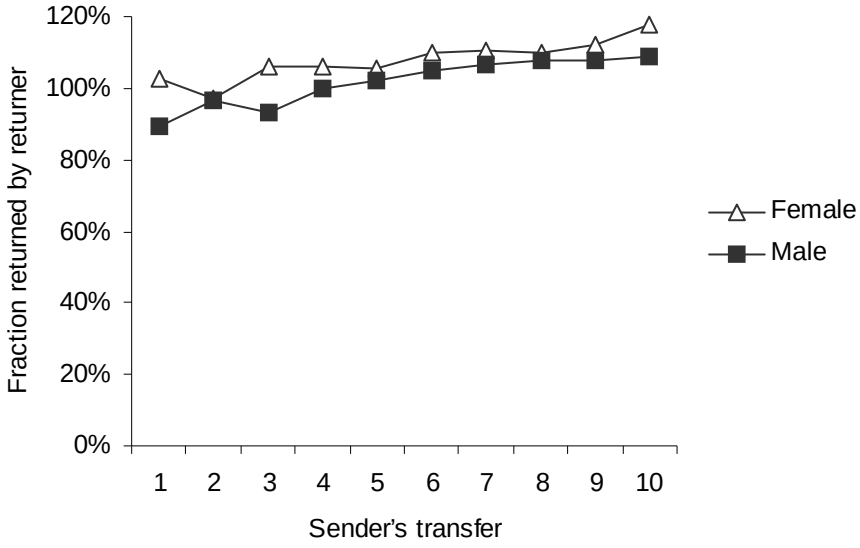

Figure 3: Fraction of points returned by the returner from the points received from the sender.

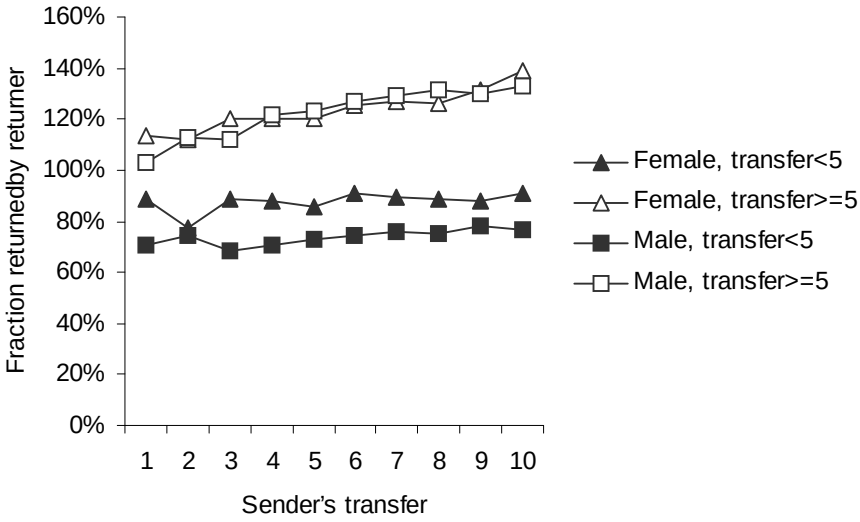

Figure 4: Fraction of the sender's transfer returned by the returner (by gender and by subjects' transfer in the role of sender).

Observation 4: Both male and female "trusting" senders return such an amount in the role of returner so as to make the transfer by the sender profitable. This is not the case for "distrusting" senders. Moreover, among such subjects, males return less than females.

The gender difference in returner behavior among subjects behaving as distrusting in the role of sender may have the following explanation. Senders having unfavorable beliefs about how much the returner returns may choose to transfer little if (1) they are endowed with social preferences but betrayal or risk averse, or (2) they prefer to maximize own material payoffs. The former would transfer little in the role of sender but return a significant amount in the role of returner, while the latter would both transfer and return little. Therefore, the usual observation that women are both more risk averse and fairer than men is consistent with our observation about return strategies of "distrusting" senders. This gender difference is also reflected in the fact that the correlation between a subject's transfer in the role of sender and his/her average return in the role of returner is positive and strongly significant for men, but smaller and only marginally significant for women: we find Spearman correlation coefficients of $\rho = 0.440$ ($p = 0.000$) and $\rho = 0.215$ ($p = 0.055$) respectively.

5 Conclusions

In our experiment, we have implemented a strategy method behind the veil of ignorance in order to study gender differences in the trust game. Our design does not yield significantly different results than the standard one-role one-action trust game experiment (Berg et al. [2]). Our method, therefore, does not affect subjects' decision-making to the extent that its benefits (ease of application and richer information) are outweighed by its costs (interaction with subjects' motivations, careful implementation). In contrast, the subjects in Burks et al.'s [8] and Chaudhuri and Gangadharan's [11] experiments, who are paid for both roles, turn out to trust and reciprocate less than in the standard design. Methodologically, therefore, this paper contains good news for the use of "the veil of ignorance" in the experiments when the experimenter wishes to obtain rich data on each subject while restricting oneself to the trust game only.

When analyzing our data with respect to gender differences, we have observed both similarities and differences between the male and female subpopulations. First of all, we have found that men and women do not differ on average with respect to trust, but that women on average return more than men, which is in line with the majority of the existing literature. Second, subjects of each gender show reciprocity in the sense of a strong correlation between how much senders transfer and the fraction of points returners return. Third, the distribution of the strategies for both roles has more weight on the tails for men, while that of women is unimodal, concentrated in the middle of the strategy set. Finally, the distribution of strategy combinations for men is bimodal, peaking at the subgame perfect Nash equilibrium strategy combination (transfer 0 points, return 0 points) and at the Pareto efficient frontier (transfer whole endowment, return

at least the amount received). In contrast, the distribution of strategy combinations for women is unimodal, peaking at transferring half of the endowment and returning at least the amount received from the sender. This difference in distribution of strategies is also reflected in the fact that there is a strong and significant positive correlation between subject's transfer and return strategy for men but not for women.

On the basis of subjects' strategies in both roles, we conclude that men's and women's "trust" has a different background. Men who "trust" (i.e. they transfer a lot in the role of sender) are mainly reciprocators while those who "distrust" (i.e. transfer a little) are mostly money maximizers. Most women return a substantial amount of what they receive, almost independently of their level of "trust", suggesting that they are endowed with some form of social preferences. Those who show distrust are more likely to be risk or betrayal averse than selfish money-maximizers.

References

[1] Andreoni, J. and Vesterlund, L. (2001) "Which is the Fair Sex?", Quarterly Journal of Economics 116, 293-312

[2] Berg J., Dickhaut J. and McCabe K. (1995) "Trust, Reciprocity, and Social History ", Games and Economic Behavior 10, 122-142

[3] Bellemare, Ch. and Kroeger, S. (2003) "On Representative Trust", CentER Discussion Papers 2003-47

[4] Bohnet, I. and Zeckhauser, R. (2004) "Trust, Risk and Betrayal", Journal of Economic Behavior and Organization 55, 467-484

[5] Bolton, G.E., and Katok, E. (1995) "An Experimental Test for Gender Differences in Beneficent Behavior", Economic Letters 48, 287-292

[6] Brandts, J. and Charness, G. (2000) "Hot vs. Cold: Sequential Responses and Preference Stability in Experimental Games", Experimental Economics 2, 227-238

[7] Brown-Kruse, J. and Hummels, D. (1993) "Gender Effects in laboratory Public Goods Contribution", Journal of Economic Behavior and Organization 22, 255-267

[8] Burks, S.V., Carpenter, J.P. and Verhoogen, E. (2003) "Playing Both Roles in the Trust Game", Journal of Economic Behavior and Organization 51, 195-216

[9] Camerer, C.F. and Fehr, E. (2002) "Measuring Social Norms and Preferences using Experimental Games: A Guide for Social Scientists", IEW Working Paper 97, University of Zurich

[10] Carpenter, J.P. (2002) "Measuring Social Capital: Adding Field Experimental Methods to the Analytical Toolbox", in: Kelly, T. and Kamaswany, S. (Eds.), Social Capital and Economic Development: Well-Being in Developing Countries, Edward Elgar Publishing, Cheltenham, UK

[11] Chaudhuri, A. and Gangadharan, L. (2002) "Gender Differences in Trust and Reciprocity", Discussion Paper, Wellesley College and University of Melbourne

[12] Cox, J. (2004) " How to Identify trust and Reciprocity", Games and Economic Behavior 46, 260-281

[13] Cox, J. (2002) "Trust, Reciprocity and Other-Regarding Preferences: Groups vs. Individuals and Males vs. Females", In: Zwick, R. and Rappoport, a. (Eds.), Advances in Experimental Business Research, Kluwer Academic Publishers: Boston, MA

[14] Cox, J. (2000) "Implications of Game Triads for Observations of Trust and Reciprocity", Working Paper, University of Arizona

[15] Cox, J.C. and Deck, C.A. (2002) "When are Women More Generous than Men?", manuscript

[16] Croson, R. (2000) "Thinking Like a Game Theorist: Factors Affecting the Frequency of Equilibrium Play", Journal of Economic Behavior and Organization 41, 299-314

[17] Croson, R. and Buchan, N. (1999) "Gender and Culture: International Evidence from Trust Games", American Economic Review 89, 386-391

[18] Danielson, A.J. and Holm, H.J. (2004) "Do You Trust Your Brethren?", Working Papers 2004:2, Lund University, Department of Economics

[19] Dufwenberg, M. and Muren, A. (2002) "Discrimination by Gender and Social Distance", Stockholm University Research Papers in Economics 2002:2.

[20] Eckel, C. and Grossman, P. (1998) "Are Women Less Selfish Than Men? Evidence from Dictator Games", Economic Journal 108, 726-735

[21] Eckel, C. and Grossman, P. (2000) "Differences in the Economic Decisions of Men and Women: Experimental Evidence", in Handbook in Experimental Economics Eds. Ch. Plott and V.L. Smith, New York: North Holland.

[22] Eckel, C. and Grossman, P. (2002) "Sex Differences and Statistical Stereotyping in Attitudes Towards Financial Risk", Evolution and Human Behavior 23, 281-295

[23] Eckel, C. and Wilson, R. (2004) "Is Trust a Risky Decision?" Journal of Economic Behavior and Organization 55, 447-465

[24] Fischbacher, U (1999) "z-Tree. Toolbox for Readymade Economic Experiments", IEW Working Paper 21, University of Zurich

[25] Karlan, D.S. (2004) "Using Experimental Economics to Measure Social Capital and Predict Financial Decisions", forthcoming in American Economic Review

[26] Novell, C. and Tinkler, S. (1994) "The Influence of Gender on the Provision of a Public Good", Journal of Economic Behavior and Organization 25, 25-36

[27] Offerman T., Potters, J. and Verbon, H. (2001) "Cooperation in an Overlapping Generations Experiment", Games and Economic Behavior36, 264-275

[28] Rawls, J. (1971) "A Theory of Justice", Belknap Press of Harvard University Press,Cambridge, MA

[29] Schechter, L. (2005) "Traditional Trust Measurement and the Risk Confound: An Experiment in Rural Paraguay", forthcoming in Journal of Economic Behavior and Organization

[30] Sonnemans, J. (2000) "Decisions and Strategies in a Sequential Search Experiment", Journal of Economic Psychology 21, 91-102

[31] Vyrastekova, J. and Garikipati, S. (2005) "Beliefs and Trust: An Experiment", CentER Discussion Papers 2005-88